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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/622,360	08/16/2000	Keiji Shigesada	Q60187	3575

23373 7590 10/02/2002

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EXAMINER

LUK, EMMANUEL S

ART UNIT PAPER NUMBER

1722

DATE MAILED: 10/02/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary**Application No.**

09/622,360

Applicant(s)

SHIGESADA ET AL.

Examiner

Emmanuel S. Luk

Art Unit

1722

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 August 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-9 is/are rejected.
- 7) ☒ Claim(s) 5, 10-12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 5 and 10-12 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim *cannot depend from any other multiple dependent claim*. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3, 6 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Miyairi.

Miyairi teaches the claimed apparatus with a gate from the tip (5a), a recess (4) that acts as a reservoir, a compression core (6) that acts as a cut punch that is located on a movable die (2), the cut punch moves towards the gate while the material is still in the molten state (Col. 3, lines 60-65). The molten state of the material denotes that there is a hot runner due to the hot nozzle (5).

3. Claims 1, 3, 6, and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Suekichi.

Suekichi teaches the claimed apparatus with a cavity (3), a sprue (2) and disc gate (2), a punch that advances (4) upwards towards the gate while the material is still in its molten state, causing some of the material to flow back into the sprue and another part into the cavity, the recess (Fig. 1, 2) acting as a reservoir opposite the punch. The

molten state of the material denoting that the sprue acts as a hot runner for the material to be introduced.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 2-4 and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyairi in view of Ikuo and Kunio.

Miyari teaches the claimed apparatus as shown in the 102 rejection above.

Miyairi fails to teach a plurality of cavities, resin reservoirs and cut punches, and valve gate structure to close the gate.

Ikuo teaches the simultaneous molding of a plurality of products by a plurality of cavities and cut punches. This is a multiplied effect of producing a plurality of products via simultaneously molding of a plurality of elements. In regards to claim 7, the plural pairs of the elements is a plurality of the elements.

Kunio teaches a valve gate structure as a valve pin (26) that moves forward to cut off the flow of the material (R) to the gate (23) as it joins with gate closing part (33) to prevent material from flowing into the cavity (3).

It would have been obvious to one of ordinary skill in the art to modify Miyairi with have a plurality of cavities, resin reservoirs and cut punches as taught by Ikuo to mold a plurality of molded products, and a valve gate structure as taught by Kunio to shut off the flow of materials to the gate.

7. Claims 2-4 and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suekichi in view of Ikuo and Kunio.

Suekichi teaches the claimed apparatus as shown in the 102 rejection above.

Suekichi fails to teach a plurality of cavities, resin reservoirs and cut punches, and valve gate structure to close the gate.

Ikuo teaches the simultaneous molding of a plurality of products by a plurality of cavities and cut punches. This is a multiplied effect of producing a plurality of products via simultaneously molding of a plurality of elements. In regards to claim 7, the plural pairs of the elements is a plurality of the elements.

Kunio teaches a valve gate structure as a valve pin (26) that moves forward to cut off the flow of the material (R) to the gate (23) as it joins with gate closing part (33) to prevent material from flowing into the cavity (3).

It would have been obvious to one of ordinary skill in the art to modify Suekichi with have a plurality of cavities, resin reservoirs and cut punches as taught by Ikuo to

mold a plurality of molded products, and a valve gate structure as taught by Kunio to shut off the flow of materials to the gate

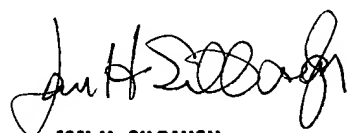
Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hatakeyama et al, Asai, Takahashi and Kadoriku et al.
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel S. Luk whose telephone number is (703) 305-1558. The examiner can normally be reached on Mondays through Thursdays from 6:30 AM to 4:00 PM and alternate Fridays from 6:30 AM to 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jan H. Silbaugh can be reached on (703) 308-3829. The Rightfax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

E. L.
September 26, 2002


JAN H. SILBAUGH
SUPERVISORY PATENT EXAMINER
ART UNIT 1722

09/27/02